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Not Reported in F.Supp.2d, 2004 WL 62490 (D.Del.), 69 U.S.P.Q.2d 1466
Briefs and Other Related Documents

United States District Court,D. Delaware.
ESPEED, INC.; Cantor Fitzgerald, L.P.; and CFPH, L.L.C., Plaintiffs,
v.
BROKERTEC USA, L.L.C.; Brokertec Global, L.L.C.; Garban, LLC; ICAP PLC; OM AB; and OM Technology (U.S.), Inc., Defendants.
No. Civ.A. 03-612-KAJ.

Jan. 14, 2004.

Jack B. Blumenfeld , Morris, Nichols, Arsht & Tunnell, Wilmington, DE, for Plaintiffs.
Richard L. Horwitz , Potter Anderson & Corroon, LLP, Wilmington, DE, for Defendants.

MEMORANDUM ORDER

JORDAN, J.

I. INTRODUCTION

*1 This is a patent infringement case. Jurisdiction is proper under 28 U.S.C. § 1338. Plaintiffs in this case are eSpeed, Inc., Cantor Fitzgerald, L.P., and CFPH, L.L.C. (collectively, "eSpeed"). Defendants are BrokerTec USA, L.L.C., BrokerTec Global, L.L.C., Garban, LLC, ICAP PLC, OM AB and OM Technology (U.S.), Inc. (collectively, "BrokerTec"). The patent-in-suit, U.S. Patent No. 6,560,580 B1 (issued May 6, 2003) (the " '580 patent"), is entitled "Automated Auction Protocol Processor." (Docket Item ["D.I."] 1, Exh. A.) The named inventors of the '580 patent are Stuart A. Fraser, Howard Lutnick, and Bijoy Paul, with plaintiffs Cantor Fitzgerald, L.P. and CFPH L.L.C. as assignees. (*Id.*) Plaintiff eSpeed, Inc. is the exclusive licensee of the '580 patent. (*Id.*, ¶ 11.)

On June 30, 2003, eSpeed filed suit alleging that BrokerTec is wilfully and intentionally infringing the '580 patent. (*Id.*, ¶ 12.) On the same day, eSpeed also filed a motion for a preliminary injunction to prevent BrokerTec from "making, using, offering for sale, selling, licensing, or otherwise distributing electronic trading systems which embody or comprise the inventions claimed in [the '580 patent]." FN1 (D.I.3.) On December 12, 2003, the United States, on behalf of the Department of the Treasury, filed a Statement of Interest in this proceeding pursuant to 28 U.S.C. § 517 . FN2 (D.I.183.)

FN1. After fully briefing eSpeed's motion for a preliminary injunction, the parties appeared for a hearing on October 30, 2003, (D.I.128), and submitted proposed findings of fact and conclusions of law on December 4, 2003 (D.I.159, 160, 167, 168).

FN2. "The Solicitor General, or any officer of the Department of Justice, may be sent by the Attorney General to any State or district in the United States to attend to the interests of the United States in a suit pending in a court of the United States, or in a court of a State, or to attend to any other interest of the United States." 28 U.S.C. § 517 (2003).

After reviewing the submissions of the parties and the government, and the applicable law, I am persuaded that the public interest strongly outweighs any private interest eSpeed may have in obtaining a preliminary injunction. eSpeed has failed to make a persuasive showing that irreparable harm will result if BrokerTec's conduct is not enjoined. Because eSpeed has not adequately shown that it is entitled to emergency relief, its motion for a preliminary injunction will be denied.

II. BACKGROUND

Both eSpeed and BrokerTec operate electronic trading platforms that facilitate trading among wholesale purchasers and sellers of United States Treasury securities and other United States government securities. (D.I. 4 at 9; D.I. 106 at 7.) eSpeed alleges that BrokerTec's trading platform infringes the technology disclosed in the '580 patent, specifically, the "workup" protocol, which eSpeed describes as follows:

> The eSpeed electronic trading platform automatically provides the participants who are

> first to make a bid or offer (or the first to act on a bid or offer) with priority and a time-based right of first refusal with respect to that transaction. Only after an initial trade is done or the defined time interval lapses may others participate in the trade at the defined price. This protocol ... effectively rewards participants for market participation, providing liquidity and driving the market towards the best price by preventing others from exploiting the market that the initial traders have created before they have revealed and been given the opportunity to trade their full volume. After the initial traders have finished trading with one another, the protocol allows another trader to participate in the trade without being able to exclude others from also participating.

*2 (D.I. 4 at 13; D.I. 6, ¶ 7.) Independent claim 22 and dependent claim 23 of the '580 patent address this workup trading protocol, in particular, "its division into two periods, a period when the initial traders control the trade to the exclusion of all other participants and a period that follows in which orders placed by other participants may be executed, without others controlling the trade." FN3 (D.I. 4 at 25; D.I. 6, ¶ 12.)

> FN3. Independent claim 22 reads as follows:
> A method implemented on a distributed-workstation computer system for trading an item between participants, said method comprising:
> providing a bid/offer system state wherein a first participant enters a bid or offer for the item at a select price and volume;
> receiving from a second participant a trade command to hit or lift the bid or offer;
> entering a trading system state wherein a trade transaction is executed between the first and second participants for a volume of the item at a defined price, and wherein (a) the first and second participants are provided a period to control trading, during which they may transact with each other additional volume of the item at the defined price to the exclusion of other participants desiring to participate in the trade, and (b) upon conclusion of the period, a new trade transaction is automatically executed at the defined price in response to a trade command entered by another participant without providing the other participant a period to control the trade.
> '580 patent, col. 20, Ins. 33-53. Dependent claim 23 claims the method of claim 22, "wherein the trade command entered by the other participant is entered during the period to control trading but not executed until the conclusion of said period." *Id.*, Ins. 54-57.

On May 21, 2001, BrokerTec's electronic trading platform began offering workup privileges to initial participants in a trade. FN4 (D.I. 106 at 14.) BrokerTec states that the workup privileges it "grant[s] its customers ... are of fixed temporal duration," and "[b]y intentional design, [its] customers cannot 'control' a trade, as that latter term is used in the '580 patent...." (D.I. 106 at 16.) eSpeed claims that BrokerTec's trading platform implements the same workup protocol claimed in the '580 patent, and thus literally infringes claims 22 and 23. (D.I. 4 at 26.)

> FN4. BrokerTec argues that eSpeed has "purposefully delayed" for over two years in seeking injunctive relief. (D.I. 106 at 12.) eSpeed, of course, denies this allegation. (D.I. 118 at 17, 18.) The parties will have the opportunity to resolve this issue at trial, as it does not impact my decision that a preliminary injunction is inappropriate given the critical public interest at stake.

In support of its motion for a preliminary injunction, eSpeed asserts that it has a high likelihood of success on the merits of its infringement claim. (D.I. 4 at 20.) eSpeed further argues that, since the '580 patent is both valid and infringed, it is entitled to a presumption of irreparable harm. (*Id.* at 30.) Finally, eSpeed asserts that both the balance of the hardships and the public interest favor granting a preliminary injunction. (*Id.* at 34, 36 .) BrokerTec disputes the validity of the '580 patent (D.I. 106 at 23, 26) and claims that eSpeed has not presented competent evidence of infringement (*id.* at 34). BrokerTec further argues that granting a preliminary injunction would adversely affect the public interest. (*Id.* at 38.) The government's position is that "the proposed injunction would effectively eliminate an electronic marketplace used by a significant percentage of traders in the secondary market for Treasury securities," resulting in "a significant, detrimental impact on the public interest." (D.I. 183 at 2.)

III. STANDARD OF REVIEW

A preliminary injunction is "a drastic and extraordinary remedy that is not to be routinely granted." *Intel Corp. v. ULSI Sys. Tech., Inc.*, 995 F.2d 1566, 1568 (Fed.Cir.1993). As the moving party, eSpeed is entitled to a preliminary injunction only if it succeeds in showing (1) a reasonable likelihood of success on the merits; (2) irreparable harm if an injunction is not granted; (3) a balance of hardships tipping in its favor; and (4) the injunction's favorable impact on the public interest. *Amazon.com, Inc. v. Barnesandnoble.com, Inc.*, 239 F.3d 1343, 1350 (Fed.Cir.2001) (citing *Reebok Int'l Ltd. v. J. Baker, Inc.*, 32 F.3d 1552, 1555 (Fed.Cir.1994)).

When deciding whether a preliminary injunction should be granted or denied, the court should weigh and measure each of the four factors against the other factors and against the magnitude of the relief requested. *Hybritech Inc. v. Abbott Laboratories*, 849 F.2d 1446, 1451 n. 12 (Fed.Cir.1988). Under this rule, no one factor, taken individually, is necessarily dispositive. *Chrysler Motors Corp. v. Auto Body Panel, Inc.*, 908 F.2d 951, 953 (Fed.Cir.1990). If a preliminary injunction is granted by the trial court, the weakness of the showing regarding one factor may be overborne by the strength of others. *Id.* If the injunction is denied, the absence of an adequate showing with regard to any one factor may be sufficient, given the weight or lack of it assigned the other factors, to justify the denial. *Id.* "As a basic proposition, [granting or denying a preliminary injunction] lies largely in the sound discretion of the trial judge." *Id.* (citation omitted).

IV. DISCUSSION

A. Public Interest

***3** In patent cases, "the focus of the district court's public interest analysis should be whether there exists some critical public interest that would be injured by the grant of preliminary relief." *Hybritech*, 849 F.2d at 1458. Because the government has taken the extraordinary step of filing a Statement of Interest in this case that exclusively discusses the impact of eSpeed's requested preliminary injunction on the "critical market for Treasury securities," (D.I. 183 at 4), I will first consider whether the proposed injunction adversely affects the public interest.

Apart from asserting that the public interest generally favors protecting a patentee's rights, (D.I. 4 at 36 (citing *Smith Intern., Inc. v. Hughes Tool Co.*, 718 F.2d 1573, 1581 (Fed.Cir.1983)), eSpeed argues that the purpose of its motion for a preliminary injunction is not to prevent BrokerTec from using "any version of a workup protocol," but rather to "stop BrokerTec from using the protocol covered by the '580 patent" (D.I. 118 at 19). Thus, eSpeed suggests that BrokerTec and its customers may easily transition back to using an outdated, inferior, and less sophisticated trading platform without causing any disruptions in the secondary market. (D .I. 4 at 35; D.I. 128 at 58:7-10.) That suggestion is belied by the evidence and common sense. eSpeed acknowledges that "virtually all outright trading of Treasury benchmarks in the wholesale secondary market is occurring on one of two electronic marketplaces, eSpeed or BrokerTec." (D.I. 4 at 17; D.I. 5, ¶ 12.) At oral argument, counsel for eSpeed estimated that, with respect to different trading instruments, thirty-five to sixty-five percent of the trading is conducted using BrokerTec's trading platform. (D.I. 128 at 52:1-8.) Though the magnitude of reliance on BrokerTec's trading platform is highly significant by either estimate, eSpeed assiduously ignores the fact that granting injunctive relief would effectively remove BrokerTec from the secondary trading market. BrokerTec's customers, who are accustomed to its current trading platform, are not likely to revert back to an antiquated method of trading. Instead, they are more likely to turn their trading, after some delay, to the only other viable player in the secondary market, namely, eSpeed. Indeed, it is reasonable to believe that that is exactly the result eSpeed hopes to achieve. While eSpeed may ultimately be entitled to the hegemony it seeks with this injunction, the government has pointed out three particular reasons why a preliminary injunction that reaches that result will adversely impact the public interest.

First, shutting down the trading system used by a significant part of the market could reduce trading in Treasury securities indefinitely, making them less liquid and decreasing their attractiveness as an investment. (D.I. 183 at 4.) The ultimate result of reduced trading would be an increased cost to the government in borrowing money to finance the Nation's debt. (*Id.*) Second, an "injunction would increase systemic risk to the secondary market for Treasury securities by leaving only one commonly used electronic trading system, the one operated by

[eSpeed]." (*Id.* at 5.) Without an alternative trading system, the secondary trading market would be devastated if eSpeed's system went awry. Finally, "an injunction would give the plaintiffs a monopoly over the primary trading system used by the wholesale secondary market for Treasury securities." (*Id.*) In the absence of competition, the transaction fees paid by dealers who trade Treasury securities is likely to increase, with these costs being passed on to the Treasury Department when it issues securities. (*Id.*)

***4** Not surprisingly, BrokerTec's position mirrors the one taken by the government. Brokertec asserts that eSpeed's requested relief "would directly interfere with the [government's] ability to assure itself of a competitive and efficiently operating market for the trading of Treasury securities...." (D.I. 106 at 39.) eSpeed has not set forth any persuasive reason why its private interest in vindicating its patent rights is more important than the critical public interest in maintaining a fluid, competitive market for trading Treasury securities. Therefore, I see no reason to disrupt the secondary market before a full trial on the merits of eSpeed's patent infringement claims.

B. Likelihood of Success on the Merits

The likelihood of success on the merits is established when the moving party demonstrates that the patent-in-suit is both valid and infringed. *Reebok Intern. Ltd. v. J. Baker, Inc.*, 32 F.3d 1552, 1555 (Fed.Cir.1994). Apart from asserting that its activities do not infringe the '580 patent, BrokerTec argues that the patent is invalid due to eSpeed's inequitable conduct before the U.S. Patent and Trademark Office. FN5 (D.I. 106 at 27.) "In resisting a preliminary injunction ... one need not make out a case of actual invalidity. Vulnerability is the issue at the preliminary injunction stage, while validity is the issue at trial. The showing of a substantial question as to invalidity thus requires less proof than the clear and convincing showing necessary to establish invalidity itself." *Amazon.com*, 239 F.3d at 1359.

FN5. BrokerTec also asserts that the '580 patent is invalid because eSpeed impermissibly amended the disclosure of the invention to introduce new matter and because it is obvious in light of the prior art. (D.I. 106 at 23, 26.) eSpeed disputes these claims, (D.I. 118 at 5), and I express no opinion on them at this time.

On February 21, 2002, the three named inventors of the '580 patent submitted declarations to the U.S. Patent and Trademark Office explaining why it had not previously occurred to them that a computer automated trading system, called the "Super System," might be considered prior art. (D.I. 106 at 28, D.I. 118 at 12.) eSpeed's predecessor, Cantor Fitzgerald, began using the Super System in 1993. (D.I. 106 at 28.) The inventors' declarations explained that, even though the Super System was being used in Cantor Fitzgerald's business, it was "an internal computer system." (D.I. 118 at 12, 13.) BrokerTec argues that the Super System "was used to support commercial screen brokerage activities and fed trade information to screens on customers' desks," citing the deposition testimony of one of the inventors of the '580 patent, Stuart Fraser, as support. (D.I. 106 at 28.) eSpeed states that "[t]he fact that information generated by the Super System could be advertised on customers' display screens ... does not mean that the system was not an internal one...." (D.I. 118 at 13.) BrokerTec's position is that the inventors' characterization of the Super System as an internal system was "highly misleading" and led to the Patent Examiner's mistaken belief that the Super System did not constitute prior art. (D.I. 106 at 28.)

If proven, BrokerTec's claim of inequitable conduct would invalidate the entire patent. *See Winbond Electronics Corp. v. Int'l Trade Comm'n*, 262 F.3d 1363, 1372 (Fed.Cir.2001) (noting that patent obtained through inequitable conduct may not be enforced). Without expressing an opinion on the invalidity claim, I find that BrokerTec has presented enough facts to raise a substantial question as to the validity of the '580 patent, and I conclude that the question of inequitable conduct, while not resolved, is fairly before the court. *Arthrex Inc. v. dj Orthopedics LLC*, 2002 U.S. Dist. LEXIS 7634 at *10 (D.Del. Apr. 30, 2002). Therefore, I find that eSpeed has not demonstrated a likelihood of success on the merits to a degree that would outweigh the critical public interest in the denial of an injunction. However, even if eSpeed were to make a persuasive showing of likelihood of success, eSpeed's request for injunctive relief would still be denied, given the overwhelming public interest against entering an injunction in this case. *See Cordis Corp. v. Boston Scientific Corp.*, 2003 U.S. Dist. LEXIS 21338 at *10 n. 6 (D.Del. Nov. 21, 2003) (even if movant demonstrated likelihood of success on the merits, in the absence of

proof of irreparable harm, the public interest in maintaining competitive medical device market weighed against granting preliminary injunctive relief).

C. Irreparable Harm

*5 As discussed, BrokerTec has raised a substantial question as to the validity of the '580 patent; thus, eSpeed is not entitled to a presumption of irreparable harm. *See* *Amazon.com*, 239 F.3d at 1350 (presumption of irreparable harm arises where patentee proves both infringement and validity). eSpeed's only proof of irreparable harm is that, because BrokerTec is a "competitive infringer," eSpeed is likely to lose market share and goodwill, "eroding their hard-won image as a market leader in electronic marketplace technology." (D.I. 4 at 33.) However, "[t]hese threatened injuries, which money alone could not cure," (*id.*), together with any perceived "unfair hardship" eSpeed feels it may suffer if BrokerTec is not enjoined, (*id.* at 35), are not enough to overcome the strong public interest in having both eSpeed's and BrokerTec's trading platform remain fully functional pending a full trial. FN6 *See* *Nutrition 21 v. United States*, 930 F.2d 867, 871 (Fed.Cir.1991) ("[N]either the difficultly of calculating losses in market share, nor speculation that such losses might occur, amount to proof of special circumstances justifying the extraordinary relief of an injunction prior to trial.")

FN6. I also note that, at oral argument, eSpeed's counsel was unable to suggest a reasonable amount of money to require as a bond in the event its injunction was granted. (D.I. 128 at 45-49.)

V. CONCLUSION

For these reasons, it is hereby ORDERED that eSpeed's Motion for a Preliminary Injunction is DENIED.

D.Del.,2004.
eSpeed, Inc. v. Brokertec USA, L.L.C.
Not Reported in F.Supp.2d, 2004 WL 62490 (D.Del.), 69 U.S.P.Q.2d 1466

Briefs and Other Related Documents (Back to top)

• 1:03cv00612 (Docket) (Jun. 30, 2003)

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2005 WL 1939792
418 F.3d 1361, 2005 WL 1939792 (Fed.Cir.)
(Cite as: 2005 WL 1939792 (Fed.Cir.))

Briefs and Other Related Documents

United States Court of Appeals,
Federal Circuit.
In re Sujeet KUMAR, Hariklia Dris Reitz, Xiangxin Bi, and Nobuyuki Kambe.
No. 04-1074.

Aug. 15, 2005.

Background: Patent applicants sought judicial review of decision of the Board of Patent Appeals and Interferences of the United States Patent and Trademark Office (PTO) rejecting as obvious certain claims of patent application directed to aluminum oxide particles of submicron (nanometer) size, having a specified size range and size distribution.

Holdings: The Court of Appeals, Pauline Newman, Circuit Judge, held that:
(1) applicants were entitled to respond to calculations upon which Board relied to reject application as obvious, and
(2) entirety of the evidence proffered on issue of obviousness had to be reviewed.
Vacated and remanded.

[1] Patents k16.13

291k16.13
Determination of obviousness under statute setting forth conditions for patentability is a legal conclusion based on underlying facts. 35 U.S.C.A. § 103.

[2] Patents k113(6)
291k113(6)
Court of Appeals gives plenary review to legal conclusion of obviousness of Board of Patent Appeals and Interferences, whereas underlying factual determinations are reviewed to ascertain whether they are supported by substantial evidence. 35 U.S.C.A. § 103.

[3] Patents k113(6)
291k113(6)
On review of factual determinations underlying obviousness finding by Board of Patent Appeals and Interferences, "substantial evidence" is such relevant evidence as a reasonable mind might accept as adequate to support a conclusion.

[4] Patents k32
291k32
During patent examination, the examiner bears the initial burden of establishing a prima facie case of obviousness.

[5] Patents k32
291k32
In patent examination context, the prima facie case is a procedural tool requiring that examiner initially produce evidence sufficient to support a ruling of obviousness, after which burden shifts to applicant to come forward with evidence or argument in rebuttal; when rebuttal evidence is provided, the prima facie case dissolves, and decision is made on the entirety of the evidence.

[6] Patents k36(1)
291k36(1)
A prima facie case of obviousness may be made in patent examination when the only difference from the prior art is a difference in the range or value of a particular variable.

[7] Patents k111
291k111
Patent applicants were entitled to respond to calculations upon which Board of Patent Appeals and Interferences relied to reject as obvious certain claims of patent application directed to aluminum oxide particles of submicron (nanometer) size, having a specified size range and size distribution, when values identified by Board's calculations were not contained in the prior art or any examination record and appeared for first time in Board's opinion, and Board could not refuse to consider evidence proffered by applicants in response. 37 C.F.R. § 1.196(b).

[8] Patents k97
291k97
In accordance with Administrative Procedure Act (APA), Patent and Trademark Office (PTO) must ensure that patent applicant's petition is fully and fairly treated at the administrative level, without

interim need for judicial intervention. 5 U.S.C.A. § 551 et seq.; 37 C.F.R. § 1.196(b).

[9] Patents k16(2)
291k16(2)
When a rejection of patent application for obviousness is based on overlapping values in the prior art, identification of the values deemed to overlap is material to the rejection.

[10] Patents k111
291k111
Calculations by Board of Patent Appeals and Interferences of overlapping values in the prior art and Board's resulting rejection as obvious of claims in patent application directed to aluminum oxide particles of submicron (nanometer) size, having a specified size range and size distribution, constituted new ground of rejection, necessitating opportunity for response by applicants.

[11] Patents k111
291k111
Entirety of the evidence proffered on issue of obviousness of patent application directed to aluminum oxide particles of submicron (nanometer) size, having a specified size range and size distribution, had to be reviewed when sua sponte calculations of values by Board of Patent Appeals and Interferences raised new issues regarding enablement and applicants submitted rebuttal evidence and argument that prior art did not enable claimed invention.

[12] Patents k36(1)
291k36(1)
Patent applicant may rebut a prima facie case of obviousness by providing a showing of facts supporting the opposite conclusion; such a showing dissipates the prima facie holding and requires the examiner to consider all of the evidence anew.

[13] Patents k36.1(1)
291k36.1(1)

[13] Patents k36.2(1)
291k36.2(1)
Rebuttal evidence defeating prima facie showing of obviousness may show that claimed invention achieved unexpected results relative to the prior art, that the prior art teaches away from the claimed invention, that objective evidence, such as commercial success, supports the conclusion that invention would not have been obvious to a skilled artisan, or that the prior art did not enable one skilled in the art to produce the now-claimed invention.

[14] Patents k16(3)
291k16(3)
Although published subject matter is "prior art" for all that it discloses, to render an invention unpatentable for obviousness, prior art must enable a person of ordinary skill to make and use the invention.

[15] Patents k36(1)
291k36(1)
When a prima facie case of obviousness is deemed made based on similarity to a known composition or device, rebuttal may take the form of evidence that the prior art does not enable the claimed subject matter.

[16] Patents k32
291k32

[16] Patents k36(1)
291k36(1)
Patent applicant has the burden of coming forward with evidence in rebuttal when the prior art includes a method that appears, on its face, to be capable of producing the claimed composition, and this burden may be met by presenting sufficient reason or authority or evidence, on the facts of the case, to show that the prior art method would not produce or would not be expected to produce the claimed subject matter.

Patents k328(2)
291k328(2)
5,128,081, 5,389,194. Cited as Prior Art.
Peter S. Dardi, Patterson, Thuente, Skaar & Christensen, P.A., of Minneapolis, Minnesota, for appellants. With him on the brief was Tye Biasco. Of counsel were Randall T. Skaar and Eric H. Chadwick.

John M. Whealan, Solicitor, Office of the Solicitor, of Arlington, Virginia, for the Commissioner of Patent and Trademarks. With him on the brief were James R. Hughes and Stephen Walsh, Associate Solicitors.

Before NEWMAN, Circuit Judge, ARCHER, Senior Circuit Judge, and DYK, Circuit Judge.

PAULINE NEWMAN, Circuit Judge.

***1** Sujeet Kumar, Hariklia Dris Reitz, Xiangxin Bi and Nobuyuki Kambe (together "Kumar") appeal the decision of the Board of Patent Appeals and

Interferences of the Patent and Trademark Office, rejecting claims 1-3, 5-16, and 19-22 of patent application Serial No. 09/136,483 entitled "Aluminum Oxide Particles" as obvious under 35 U.S.C. § 103. We vacate the Board's decision and remand for further proceedings.

BACKGROUND

The claims of Kumar's patent application are directed to aluminum oxide particles of submicron (nanometer) size, [FN1] having a specified size range and size distribution. The specification describes the production of the particles by laser pyrolysis, but the claims at issue are directed to the particles themselves, independent of their method of production. Due to their very small size and high degree of uniformity, the particles are described as well suited for use in polishing compositions.

The examiner had rejected all of the product claims, and on appeal the Board treated claims 1 and 19 as representative. Process claims have been allowed, and are not at issue. Kumar agrees that all of the claims on appeal rise or fall with claims 1 and 19.

> 1. A collection of particles comprising aluminum oxide, the collection of particles having
> an average diameter of primary particles from about 5 nm to about 500 nm and
> less than about one in 106 particles have a diameter greater than about three times the average diameter of the collection of particles.
> 19. A collection of particles comprising aluminum oxide, the collection of particles having
> an average diameter from about 5 nm to about 500 nm and
> a distribution of particle sizes such that at least about 95 percent of the particles have a diameter greater than about 40 percent of the average diameter and less than about 160 percent of the average diameter.

The Board held the claims unpatentable on the ground of obviousness in view of U.S. Patent No. 5,389,194 (the Rostoker patent), which shows aluminum oxide particles of nanometer size. The Board found that the particle sizes and size distributions [FN2] of the Rostoker particles and of Kumar's claimed particles are overlapping. Kumar concedes that the Rostoker particles overlap the Kumar particles in average particle size, but argues that they do not overlap in particle size distribution. The appeal relates primarily to the Board's procedure, wherein the values deemed to overlap appear for the first time in the Board's decision. Kumar states that he was unfairly precluded from replying to this evidence, and that the Board improperly refused to consider the responsive evidence submitted with Kumar's request for reconsideration.

The Board's calculations were derived from the Rostoker reference, which describes aluminum oxide having a particle size and size distribution as follows:

> According to the invention, the alpha aluminum oxide particles used for polishing exhibit the following characteristics. Preferably, the particle size is "X" nm, and the distribution of particle sizes is controlled to within "Y" nm, and the particles used for polishing are "Z" percent (%) in the alpha phase, where:
> *2 "X" is 10-100 nm, such as 10, 20, 30, 40 or 50 nm, and is preferably no greater than 50 nm; and
> "Y" is approximately "P" percent of "X", where "P" is 10%, 20%, 30%, 40% or 50%, and is preferably no greater than 50% to ensure a narrow (Gaussian) distribution of particle sizes about "X";
> "Z" is at least 50%, including at least 60%, 70%, 80% and 90%, and as high as 100%.
> A quality factor "Q" is inversely related to "Y", and is a measure of the distribution of particle sizes. "Q" can be calculated as the concentration of particles at the desired size "X", divided by the range of sizes of particles at 3 db (decibels) lower than "X". Preferably, the size distribution of alpha aluminum oxide particles used for polishing exhibits a "Q" of at least 10, including 10, 50, 100, 500, 1000, 5000, or 10,000 ("Q" is dimensionless).

Rostoker patent, col. 7, lines 4-27. The Board selected "X" and "P" values in the range disclosed by Rostoker, 10 nm and 10% respectively, to calculate a "Y" value of 1 nm (10 nm times 10% equals 1 nm), within which Rostoker's size distribution is controlled; this results in a particle size distribution range of 9-11 nm (10 nm +- 1). The Board found that this distribution range overlaps with the range in Kumar's claim 1, which the Board calculated to be 0-30 nm based on a particle size distribution controlled to within three times the average diameter (10 nm times 3 equals 30 nm). Thus the Board found that the Rostoker and Kumar distributions overlap.

Similarly, the Board selected "X" and "P" values in the range described by Rostoker, to calculate a "Y" value of 5 nm (10 nm times 50% equals 5 nm); this results in a Rostoker distribution range of 5-15 nm (10 nm +- 5). The Board found that this range overlaps with the range in Kumar's claim 19, which the Board calculated to be 4-16 nm based on the Kumar particle size distribution controlled to within 40-160% of the average diameter (10 nm times 40% and 160% equals 4 and 16 nm, respectively). The Board held that these overlapping values, and others

shown by its calculations, established a *prima facie* case of obviousness of the Kumar particles.

These calculations had not been made by the examiner, and according to the record were not presented during the argument of the appeal to the Board. The Board apparently made these calculations during its decision of the appeal. The Board included these calculations in an Appendix to its decision, holding that they support a *prima facie* case of obviousness and that Kumar's evidence had not rebutted the *prima facie* case. Kumar's evidence included a declaration by co-inventor Dr. Kambe to the effect that Rostoker does not enable one of ordinary skill in the field of the invention to produce particles having Kumar's size range and distribution. Kumar cited *Beckman Instruments, Inc. v. LKB Produkter AB,* 892 F.2d 1547, 1551 (Fed.Cir.1989), for the rule that "[i]n order to render a claimed apparatus or method obvious, the prior art must enable one skilled in the art to make and use the apparatus or method." *See also Motorola, Inc. v. Interdigital Tech. Corp.,* 121 F.3d 1461, 1471 (Fed.Cir.1997); *In re Payne,* 606 F.2d 303, 314 (CCPA 1979). The Board rejected the Kambe declaration, finding that Mr. Kambe's assertions were conclusory and unsupported by evidence.

*3 Kumar requested Board reconsideration, submitting the declaration of Dr. Rajiv Singh, Professor of Materials Science and Engineering at the University of Florida at Gainesville. Professor Singh explained that Rostoker's "Q" value defines size distribution, and criticized Rostoker's description of the "Q" value as internally inconsistent and not in conformity with standard representations of distribution functions. Professor Singh pointed out that Rostoker stated that he used the manufacturing method of Siegel, U.S. Patent No. 5,128,081, and opined that Siegel does not produce submicron particles. The Board refused to consider Professor Singh's declaration, ruling that Kumar had not shown good and sufficient reason why it was not earlier presented.

Kumar appeals, stating that a *prima facie* case of obviousness was not established, or if established was rebutted. Kumar objects to the tardy submission of the Board's calculations and states that he was entitled to consideration of Professor Singh's evidence. Kumar argues that the Singh evidence rebuts the *prima facie* case and that the Board should have either considered it or remanded to the examiner for that purpose.

DISCUSSION

[1][2][3] Determination of obviousness under 35 U.S.C. § 103 is a legal conclusion based on underlying facts. *Graham v. John Deere Co.,* 383 U.S. 1, 17, 86 S.Ct. 684, 15 L.Ed.2d 545 (1966); *In re Oetiker,* 977 F.2d 1443, 1444 (Fed.Cir.1992); *In re Piasecki,* 745 F.2d 1468, 1471 (Fed.Cir.1984). We give plenary review to the Board's legal conclusion, whereas the underlying factual determinations are reviewed to ascertain whether they are supported by substantial evidence. *In re Gartside,* 203 F.3d 1305, 1316 (Fed.Cir.2000). Substantial evidence is "such relevant evidence as a reasonable mind might accept as adequate to support a conclusion." *Consolidated Edison Co. v. NLRB,* 305 U.S. 197, 229, 59 S.Ct. 206, 83 L.Ed. 126 (1938).

[4][5] During examination, the examiner bears the initial burden of establishing a *prima facie* case of obviousness. *Oetiker,* 977 F.2d at 1445. The *prima facie* case is a procedural tool, and requires that the examiner initially produce evidence sufficient to support a ruling of obviousness; thereafter the burden shifts to the applicant to come forward with evidence or argument in rebuttal. *Piasecki,* 745 F.2d at 1475. When rebuttal evidence is provided, the *prima facie* case dissolves, and the decision is made on the entirety of the evidence. *Oetiker,* 977 F.2d at 1445; *In re Spada,* 911 F.2d 705, 708 (Fed.Cir.1990); *In re Rinehart,* 531 F.2d 1048, 1052 (CCPA 1976).

A

[6] A *prima facie* case of obviousness may be made when the only difference from the prior art is a difference in the range or value of a particular variable. *In re Peterson,* 315 F.3d 1325, 1329 (Fed.Cir.2003); *In re Woodruff,* 919 F.2d 1575, 1578 (Fed.Cir.1990). The Board found that Rostoker suggests restricting the particle size distribution to a range of 9-11 nm, which overlaps Kumar's claim 1 limitation of 0-30 nm when an average diameter of 10 nm is selected for the Rostoker particles (10 nm times 3 equals 30 nm). The Board similarly found that Rostoker suggests restricting particle size distribution to a range of 5-15 nm, which overlaps Kumar's claim 19 distribution of 4-16 nm when an average diameter of 10 nm is selected (10 nm times 40% and 160% equals 4 and 16 nm, respectively).

*4 Kumar argues that Rostoker's description of its particles is too indefinite to support any particular distribution of particle sizes. Kumar states that a skilled artisan would not understand Rostoker's "Y" variable to have the values that the Board calculated because Rostoker, in addition to stating that "Y" is

approximately "P" percent of "X," requires that its particles meet a quality factor "Q" that is inversely related to "Y." Kumar argues that this renders the calculation of "Y" more complex than the Board's simplified calculation, and that Rostoker does not disclose the values the Board calculated and then used to conclude that Kumar's size distribution overlaps with that of Rostoker. Kumar also states that the Board should have provided an opportunity to support this argument with evidence showing that the Rostoker teachings do not support the Board's *sua sponte* calculations. Kumar states that the Singh declaration establishes the indefiniteness of the Rostoker reference, and challenges the assumptions underlying the Board's calculations.

The PTO responds that Rostoker's quality factor "Q" describes the extent to which his particle size distribution is controlled to within certain limits of the target particle size. The PTO suggests that Q is calculated as follows: Rostoker calls for the division of the amount of particles at the desired size X, by the amount of particles at a size 3 decibels ("db") from X. To find a value 3 db from X, which the Board labels "A," one must solve the logarithmic function, 10 log (X/A) = 3 db. The PTO solves this function and finds that if log (X/A) = 3/10, then X/A = 103/10, and thus X/A = 2, and A = X/2. This means that a value that is 3 db lower than X is X/2 or 50% of X. Thus the PTO states that the quality factor Q merely describes the extent to which the particles are within 50% and 150% of the target particle size. For example, the "Q" value of 10,000 in the Rostoker reference indicates a high quality product in which 10,000 particles are of the target size for every particle at 50% or 150% of the target size. According to the PTO, rather than making indefinite the values for "X" and "Y" as shown by Rostoker and the ranges of those values, the "Q" factor provides an independent description of Rostoker's particle size distribution.

The PTO also responds that the Board was correct in refusing to consider the Singh declaration because its execution date shows that it was prepared before the Board issued its initial decision, and thus could have been earlier presented. Kumar states that the Singh declaration was prepared for use in a different patent application, and that its relevance to this application became manifest only after the Board's decision.

[7] The values identified by the Board's calculations were not contained in the prior art or any examination record, but appeared for the first time in the Board's opinion. Although the PTO argues that the calculations the Board included in its decision were not new evidence, but simply an additional explanation of the Board's decision, these values produced and relied on by the Board had not previously been identified by the examiner or the Board. Kumar was entitled to respond to these calculations, and the Board committed procedural error in refusing to consider the evidence proffered in response. *See In re DeBlauwe,* 736 F.2d 699, 706 n. 9 (Fed.Cir.1984) ("Where the board makes a decision advancing a position or rationale new to the proceedings, an applicant must be afforded an opportunity to respond to that position or rationale by submission of contradicting evidence"). The PTO regulations so require. *See* 37 C.F.R. § 1.196(b) ("when the Board ... makes a new rejection of an appealed claim, the appellant may ... submit ... a showing of fact ... and have the matter reconsidered").

***5** Instead of basing its decision on the values directly disclosed by Rostoker, the Board "went off on its own in considering the differences" between Rostoker and the Kumar invention, *see In re Eynde,* 480 F.2d 1364, 1371 (CCPA 1973), the Board calculating particular distribution values based on the assumption that the Rostoker variables "X," "Y," "P," and "Q" would be understood by a skilled artisan in the same way in which they were understood by the Board. The Singh declaration challenges the Board's view of the Rostoker variables. While the PTO now argues that there is no merit to the Singh position, and offers its own explanation for the meaning of the "Q" variable, the merits of this evidence are not properly debated in the first instance on appeal. There is no record on this aspect, for the Board refused to consider it.

[8] In accordance with the Administrative Procedure Act, the agency must assure that an applicant's petition is fully and fairly treated at the administrative level, without interim need for judicial intervention. *See Dickinson v. Zurko,* 527 U.S. 150, 154, 119 S.Ct. 1816, 144 L.Ed.2d 143 (1999) (the PTO is an agency subject to the Administrative Procedure Act). The Board's rules are in accord. *See* 37 C.F.R. § 1.196(b) (when the Board relies on a new ground of rejection, it is appropriate to provide the applicant with an opportunity to respond to that ground).

[9] When a rejection for obviousness is based on overlapping values in the prior art, identification of the values deemed to overlap is material to the rejection. In this case the overlapping values were identified for the first time in the decision of the Board, and are not themselves set forth in Rostoker or any other reference. In calculating the overlapping

values, the Board found facts not found by the examiner regarding the differences between the prior art and the claimed invention, which in fairness required an opportunity for response. *See In re Kronig,* 539 F.2d 1300, 1302 (CCPA 1976) ("the ultimate criterion of whether a rejection is considered 'new' in a decision by the board is whether appellants have had fair opportunity to react to the thrust of the rejection").

[10] We conclude that the Board's calculations and its decision based thereon constituted a new ground of rejection, and should have been so treated. *See In re Waymouth,* 486 F.2d 1058, 1060-61 (CCPA 1973) (holding that a new rejection had occurred where the examiner and the board rejected a claim for different reasons).

B

[11] Kumar also argues that even if a *prima facie* case of obviousness were established, Kumar rebutted that case with evidence and argument that Rostoker did not enable the Kumar product, and that the Board erred in refusing to consider the rebuttal evidence.

[12][13] An applicant may rebut a *prima facie* case of obviousness by providing a "showing of facts supporting the opposite conclusion." Such a showing dissipates the *prima facie* holding and requires the examiner to "consider all of the evidence anew." *Piasecki,* 745 F.2d at 1472; *In re Rinehart,* 531 F.2d 1048, 1052 (CCPA 1976). Rebuttal evidence may show, for example, that the claimed invention achieved unexpected results relative to the prior art, *In re Geisler,* 116 F.3d 1465, 1469-70 (Fed.Cir.1997); that the prior art teaches away from the claimed invention, *id.* at 1471; that objective evidence (*e.g.,* commercial success) supports the conclusion that the invention would not have been obvious to a skilled artisan, *Piasecki,* 745 F.2d at 1475; or that the prior art did not enable one skilled in the art to produce the now-claimed invention, *In re Payne,* 606 F.2d 303, 314-15 (CCPA 1979).

***6** [14][15] Although published subject matter is "prior art" for all that it discloses, in order to render an invention unpatentable for obviousness, the prior art must enable a person of ordinary skill to make and use the invention. *Beckman Instruments,* 892 F.2d at 1551. Thus when a *prima facie* case of obviousness is deemed made based on similarity to a known composition or device, rebuttal may take the form of evidence that the prior art does not enable the claimed subject matter. *See Payne,* 606 F.2d at 314- 15 ("the presumption of obviousness based on close structural similarity is overcome where the prior art does not disclose or render obvious a method for making the claimed compound"); *In re Hoeksema,* 55 C.C.P.A. 1493, 399 F.2d 269, 274 (1968) ("the absence of a known or obvious process for making the claimed compounds overcomes a presumption that the compounds are obvious, based on close relationships between their structures and those of prior art compounds").

[16] The applicant has the burden of coming forward with evidence in rebuttal, when the prior art includes a method that appears, on its face, to be capable of producing the claimed composition. This burden may be met by presenting sufficient reason or authority or evidence, on the facts of the case, to show that the prior art method would not produce or would not be expected to produce the claimed subject matter. Since Rostoker states that its particles were made by the method shown in the Siegel patent, it was reasonable for Kumar to argue that the Siegel process would not produce Kumar's particles. Kumar's argument was supported by the declarations of Drs. Kambe and Singh. Whether these expert declarations are sufficient, without experimental data or other evidence, is a question of fact to be determined on the record. Although the PTO now argues that the Singh declaration is insufficient, the Board erred in refusing to consider the Singh declaration, for Kumar correctly observed that the issue was not presented until the Board made its *sua sponte* calculations of particle size distribution. The Board's calculations raised new issues regarding enablement because they suggest particle size distributions Rostoker should be enabled to attain. In addition, although the Board found the Kambe declaration conclusory and insufficient to rebut the *prima facie* case of obviousness, this declaration must be reevaluated in light of the Singh declaration. *See Rinehart,* 531 F.2d at 1052 (when evidence is submitted to rebut a *prima facie* case of obviousness, the decision maker must consider all of the evidence anew).

The PTO argues that as long as Rostoker enables the Rostoker invention, Rostoker renders the Kumar invention obvious, even if Kumar shows that Rostoker does not enable the Kumar invention. That is incorrect. To render a later invention unpatentable for obviousness, the prior art must enable a person of ordinary skill in the field to make and use the later invention. *Beckman Instruments, Inc.,* 892 F.2d at 1551; *Payne,* 606 F.2d at 314. Thus the relevant inquiry is not whether the Rostoker patent was invalid for lack of enablement, but whether Rostoker enabled persons skilled in this art to produce particles of the

size and distribution claimed by Kumar. Of course, if it were shown that the Rostoker product could not be produced by the Rostoker method, that would be relevant evidence concerning whether Rostoker rendered obvious the Kumar product. Kumar points out that his method of laser pyrolysis is quite different from that used by Rostoker.

*7 After the Board adduced its calculations of particle size and distribution, Kumar was entitled to offer evidence in rebuttal, for consideration by the Board or on return to an examiner. The entirety of the evidence must be reviewed in order to determine whether the claimed invention as a whole would have been obvious to a person of ordinary skill in the field. *See Rinehart,* 531 F.2d at 1052.

CONCLUSION

In view of our holding that Kumar was entitled to respond to the evidence adduced *sua sponte* by the Board, we vacate the Board's decision and remand for appropriate further proceedings.

VACATED AND REMANDED

FN1. One micron equals 1,000 nanometers (nm).

FN2. The parties explain the difference between average particle size and particle size distribution with an analogy using balls: a collection of (1) softballs, baseballs and tennis balls may have the same average size as a collection of (2) basketballs, baseballs and golf balls, but group (2) has a larger size distribution.

418 F.3d 1361, 2005 WL 1939792 (Fed.Cir.)

Briefs and Other Related Documents (Back to top)

. 04-1074 (Docket) (Oct. 20, 2003)

END OF DOCUMENT

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--- F.3d ----, 2005 WL 2173572 (C.A.Fed.)
Briefs and Other Related Documents
Only the Westlaw citation is currently available.

United States Court of Appeals,Federal Circuit.

SYMBOL TECHNOLOGIES, INC., Accu-Sort Systems, Inc., Intermec Technologies Corp., Metrologic Instruments, Inc., PSC Inc., Teklogix Corporation, Zebra Technologies Corp., Cognex Corporation, and Telxon Corporation, Plaintiffs-Appellees,

v.

LEMELSON MEDICAL, EDUCATION & RESEARCH FOUNDATION, LP, Defendant-Appellant.

No. 04-1451.

Sept. 9, 2005.

Background: Patentee's competitors sought declaration that patents related to machine vision and automatic identification bar code technology were invalid, unenforceable, and not infringed. The United States District Court for the District of Nevada , Philip M. Pro , Chief Judge, 301 F.Supp.2d 1147, held patent invalid, unenforceable, and not infringed. Patentee appealed.

Holding: The Court of Appeals, Lourie, Circuit Judge, held that finding of prosecution laches was not abuse of discretion.

Affirmed.

[1] **Patents 291 289(2.1)**
291k289(2.1) Most Cited Cases
Doctrine of prosecution laches is equitable defense to claim of patent infringement, and district court's judgment on that issue is reviewed for abuse of discretion.

[2] **Patents 291 289(2.1)**
291k289(2.1) Most Cited Cases
"Prosecution laches" may render patent unenforceable when it has issued only after unreasonable and unexplained delay in prosecution.

[3] **Patents 291 289(2.1)**
291k289(2.1) Most Cited Cases
There are no strict time limitations for determining whether continued refiling of patent applications is legitimate utilization of statutory provisions or abuse of those provisions, giving rise to prosecution laches; rather, matter is to be decided as matter of equity, subject to discretion of district court before which issue is raised.

[4] **Patents 291 289(2.1)**
291k289(2.1) Most Cited Cases
Doctrine of "prosecution laches" should be applied only in egregious cases of misuse of statutory patent system.

[5] **Patents 291 289(2.1)**
291k289(2.1) Most Cited Cases
Filing of divisional application in response to examiner's requirement for restriction is legitimate reason for refiling patent application which cannot, without more, be ground for finding of prosecution laches, even when applicant defers filing of divisional application until just before issuance of parent application. 35 U.S.C.A. § 121 ; 37 C.F.R. § 1.142.

[6] **Patents 291 289(2.1)**
291k289(2.1) Most Cited Cases
Refiling of patent application solely containing previously-allowed claims for business purpose of delaying their issuance can be considered abuse of patent system, giving rise to prosecution laches.

[7] **Patents 291 289(4)**
291k289(4) Most Cited Cases
Finding of prosecution laches, rendering multiple patents related to machine vision and automatic identification inventions unenforceable, was not abuse of discretion; 18- to 39-year delay between filing and issuance of patents was unreasonable, inventor had engaged in "culpable neglect" during prosecution, and intervening private and public rights had arisen.

Patents 291 328(2)
291k328(2) Most Cited Cases

Patents 291 328(2)
291k328(2) Most Cited Cases

3,081,379. Cited.

4,338,626, 4,511,918, 4,969,038, 4,979,029, 4,984,073, 5,023,714, 5,067,012, 5,119,190, 5,119,205, 5,128,753, 5,144,421, 5,249,045, 5,283,641, 5,351,078. Unenforceable.

Appealed from: United States District Court for the District of Nevada. Chief Judge Philip M. Pro.

Jesse J. Jenner , Ropes & Gray LLP, of New York, New York, argued for plaintiffs-appellees. With him on the brief were Charles Quinn , Krista M. Rycroft , Kenneth B. Herman , William J. McCabe , and Pablo D. Hendler.
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Jonathan M. James , Perkins Coie Brown & Bain P.A., of Phoenix, Arizona, for amicus curiae Intel Corporation. With him on the brief were C. Randall Bain and Dan L. Bagatell.

Before MAYER , LOURIE , and BRYSON, Circuit Judges.

LOURIE, Circuit Judge.
Lemelson Medical, Education & Research Foundation, LP ("Lemelson") appeals from the declaratory judgment of the United States District Court for the District of Nevada in favor of Symbol Technologies, *et al.* (collectively, "Symbol") that Lemelson's asserted patent claims are invalid for lack of enablement, unenforceable under the doctrine of prosecution laches, and not infringed. *Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found.*, 301 F.Supp.2d 1147 (D.Nev.2004) ("*Symbol III* "). Because we conclude that the district court did not abuse its discretion in holding that Lemelson's patents are unenforceable under the doctrine of prosecution laches, we affirm.

BACKGROUND

Lemelson is the assignee of approximately 185 unexpired patents and many pending patent applications of the late Jerome H. Lemelson. The patents at issue here generally involve machine vision and automatic identification bar code technology and are asserted to be entitled to the benefit of the filing date of two Lemelson patent applications filed in 1954 and 1956.

In December 1954, Mr. Lemelson filed a patent application that disclosed methods and an apparatus for performing the inspection and measurement of objects. The specification stated: "This invention relates to automatic production equipment and related devices and particularly devices which will perform an automatic operation or operations on work in progress." In 1956, he filed a second application, this time disclosing methods and an apparatus relating to "magnetic recording and particularly to recording means and arrangements whereby video image signals may be used for effecting a multiple of computing, operative, measurement and control functions." Ultimately, in 1963, U.S. Patent 3,081,379 issued from the 1956 application. Before the '379 patent issued, Mr. Lemelson filed a 1963 continuation-in-part ("CIP") application from the 1954 and 1956 applications, adding drawings and text and allegedly combining aspects of the two specifications. In 1972, he further augmented that specification by filing another CIP application, a so-called "common specification," that eventually became the basis for an additional sixteen patent applications filed between 1977 and 1993. *Symbol III*, 301 F.Supp.2d at 1153. Fourteen of the resulting patents are before us. Claim 12 of U.S. Patent 4,979,029, which resulted from one of those applications, is representative and reads as follows:

> A method for inspecting an image field to determine if a select image phenomenon is present in said image field, comprising:
> (a) scanning an image field containing at least one contrasting image portion which is detectable with

an electronic scanning device,
(b) generating first electrical signals which vary in accordance with variations in detected contrasting image portions of the image field scanned,
(c) analyzing said first electrical signals and generating first information signals corresponding to the detected contrasting image portions of the image field scanned,
(d) electrically comparing said first information signals from recordings in a memory which are indicative of said select image phenomenon, and
(e) generating electrical signals indicative of the presence of said select image phenomenon in said scanned image field.
'029 patent, col. 68, ll. 6-24.

Symbol and its co-plaintiffs design, manufacture, and sell bar code scanners and related machine vision products, including laser and CCD bar code readers. *Symbol III*, 301 F.Supp.2d at 1150. In 1998, Symbol's customers began receiving letters from Lemelson stating that the use of the plaintiff's products infringed various Lemelson patents. Symbol claims that it would be forced to indemnify those customers should any of the patents be found to be valid and infringed. In response, Symbol filed a declaratory judgment action against Lemelson seeking a judgment that the asserted patents FN* are not infringed by Symbol or its customers. It also sought a judgment that the patents are invalid under 35 U.S.C. § 101 for lack of utility; § 102 for anticipation; § 103 for obviousness; § 112 for failure to comply with the written description, enablement, and definiteness requirements; and for double patenting. Symbol also asserted that the patents were unenforceable for prosecution laches and inequitable conduct before the U.S. Patent and Trademark Office ("PTO"). *Id.* at 1151.

Previously, Lemelson had moved to dismiss the case, arguing that there was no case or controversy between the parties and that Symbol's cause of action for prosecution laches failed to state a claim upon which relief could be granted. The district court concluded that there was a sufficient case or controversy, but it dismissed Symbol's prosecution laches claim. *Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found.*, No. 99-CV-0397 (D.Nev. Mar.21, 2000) ("*Symbol I*").

Symbol filed an interlocutory appeal to this court under 28 U.S.C. § 1292(b), and we agreed to consider "whether, as a matter of law, the equitable doctrine of laches may be applied to bar enforcement of patent claims that issued after an unreasonable and unexpected delay in prosecution even though the applicant complied with pertinent statutes and rules." *Symbol Techs., Inc. v. Lemelson Med., Educ. & Research Found.*, 277 F.3d 1361, 1363 (Fed.Cir.2002) ("*Symbol II* "). We reversed the district court's judgment, rejecting Lemelson's arguments that prosecution laches was limited to claims arising out of interference proceedings and that the passage of the 1952 Patent Act with its provisions for filing continuation and continuation-in-part applications foreclosed the application of laches. *Id.* at 1365-66. We held instead that Symbol's defense of prosecution laches was legally viable, and we remanded the case to the district court for further proceedings to determine the relevant facts.

Upon remand, the court conducted a bench trial from November 2002 to January 2003, followed by post-trial briefing that concluded in June 2003. In a decision issued in January 2004, the court held that Lemelson's patents were indeed unenforceable due to prosecution laches, invalid for lack of enablement, and not infringed by Symbol's products. First, although acknowledging that Symbol had not demonstrated that Lemelson intentionally stalled in securing the patents, the court stated that "unreasonable delay alone is sufficient to apply prosecution laches without the requirement that Lemelson intended to gain some advantage by the delay." *Symbol III*, 30 F.Supp.2d at 1156 (citing *In re Bogese II*, 303 F.3d 1362, 1369 (Fed.Cir.2002)). The court also applied the doctrine of prosecution laches because Symbol had presented "strong evidence ... of intervening private and public rights." *Id.* at 1157. Accordingly, it held that "Lemelson's 18 to 39 year delay in filing and prosecuting the asserted claims under the fourteen patents-in-suit ... was unreasonable and unjustified and that the doctrine of prosecution laches renders the asserted claims unenforceable." *Id.* at 1155.

Next, the court determined whether the various claims in suit were entitled to the filing date that Lemelson claimed. Specifically, Lemelson asserted that sixty-eight of the asserted patent claims that shared the "common specification" were entitled to priority from the 1963 application which in turn claimed priority from the 1954 and 1956 applications. Thus, Lemelson argued that some claims were entitled to a 1954 filing date and others to a 1956 filing date. However, the court rejected those arguments, finding that Lemelson

had not shown that the 1963 application was related to the earlier filings in a manner sufficient to justify its status as a CIP application. It determined that Lemelson "failed to prove that the 1963 Application is a continuation-in-part of the 1954 Application as required under § 120, nor has Lemelson demonstrated the relationship of the 1954 Application to the 1963 Application as required by Patent Office Rule 78(a)." *Id.* at 1161. The court thus held that Lemelson could not rely on the 1954 or 1956 applications as intrinsic evidence for purposes of claim construction and that the claims were not entitled to the benefit of the 1954 and 1956 filing dates. *Id.*

A consequence of that holding related to the term "pre-positioning," the significance of which was contested by the parties. As the district court observed, the term "pre-positioning" appears throughout the 1963 specification, which does not disclose any embodiment without pre-positioning. The court held that all the claims must be interpreted to require pre-positioning of the object to be scanned. *Id.* at 1163. Because the court held that Lemelson could not rely upon the 1954 application, which presents embodiments without such pre-positioning, it held that it could not argue that pre-positioning was not a claim limitation of the claims in suit. The court stated that "[t]his requirement of pre-positioning alone places the products manufactured and sold by Symbol ... outside the scope of Lemelson's invention." *Id.* at 1163.

Additionally, the court construed the claim term "scanning" to mean that Lemelson's invention involved "scanning by the use of a television or video camera and not scanning by means of a laser or CCD camera employed by Symbol." *Id.* at 1164. It reasoned that one of ordinary skill in the art could not have described such devices at the time the applications were filed because the evidence presented at trial clearly established that laser and CCD cameras did not exist in 1956 or 1963. *Id.* Pursuant to similar reasoning, the court rejected Lemelson's construction of "computer analyzing" or "computer processing" as referring to a general purpose, programmable computer, and it instead adopted Symbol's definition of "a computing circuit capable of performing a simple mathematical task such as subtraction." *Id.* Because Symbol's devices used modern tools such as laser and CCD cameras and programmable computers, and because the district court refused to construe Lemelson's claim terms as encompassing such devices, the court held that Lemelson failed to prove that Symbol's products infringed the asserted patent claims. *Id.* at 1164-65.

The district court also considered the definition of a person of ordinary skill in the art and whether Lemelson's specification would enable such a person to make and use the claimed inventions. Symbol presented expert witness testimony asserting that, for purposes of the asserted patents, a person of ordinary skill in the various fields of the invention is an electrical engineer with approximately two years of experience in signal processing and television electronics. The court was persuaded by Symbol's arguments and adopted that definition of the person of ordinary skill in the art, rejecting Lemelson's argument that the hypothetical person should instead be a "team" of experts skilled in scanning and data acquisition, data analysis and computing, and manufacturing or production engineering. The court also noted that Lemelson's own experts acknowledged that a person fitting the court's description would not have been enabled to practice the inventions of the claims, and the court accordingly held that the claims were invalid for lack of enablement under § 112.

Finally, with respect to other issues raised in the case, the court rejected Symbol's defenses of anticipation and inequitable conduct as not sufficiently supported by the evidence. It determined that it was unnecessary to consider whether the specifications met the § 112 written description requirement because it had rejected Lemelson's claim construction on which that defense rested. Additionally, the court rejected Lemelson's claim for attorney fees to compensate for Symbol's alleged unreasonable litigation tactics. *Id.* at 1165-67. Consequently, the district court held that Lemelson's patents were invalid for lack of enablement, unenforceable due to prosecution laches, and not infringed. Lemelson appeals, and we have jurisdiction pursuant to 28 U.S.C. § 1295(a)(1).

DISCUSSION

Lemelson argues that the district court erred by holding that the 1963 application was not entitled to the benefit of the priority date of the 1954 and 1956 applications. It asserts that the 1963 CIP application met the statutory requirements set forth in 35 U.S.C. § 120 for a claim of priority: it contained a reference to the prior application, identified it by serial number and filing date, and indicated the relationship between

the applications. Lemelson thus contends that the 1963 application explicitly stated that it was a CIP and properly referenced the earlier applications in order to claim priority. It also asserts that it was reversible error for the court to resolve the issue of priority without engaging in a proper claim-by-claim analysis.

Symbol responds that the 1963 application's mere reference to the 1954 application was not sufficient for entitlement of priority. It argues that more than mechanical compliance with the statute is required for entitlement to priority and that § 120 requires that a "substantial portion" of the earlier application must be repeated in the later application. Symbol states that while the 1954 application contains 170 pages of text and 104 figures, the 1963 application contains 118 pages of different text and 28 different figures, and it does not repeat any of the text or figures of the 1954 application. Symbol also asserts that Lemelson cannot incorporate "essential material" from an abandoned reference.

Lemelson also argues that the district court erred in its enablement decision because it improperly defined a person of ordinary skill in the various arts of the disclosed inventions. Lemelson maintains that the specifications involved three distinct fields, and that the skilled artisan of the claimed inventions must combine knowledge of multiple fields, in effect, be a team of experts and not a single electrical engineer. For those reasons, Lemelson argues that the district court's determination that the claims were not enabled was legal error.

Symbol responds that the district court explicitly found the testimony of Symbol's expert witness, Dr. Horn, more credible than that of Dr. Williamson, Lemelson's expert, regarding the definition of the skilled artisan. Additionally, it cites Lemelson's own statements in the specifications and the prosecution history that support the conclusion that one skilled in the art is properly defined as an electrical engineer, refuting Lemelson's present position that such a person should be construed to be a team of experts. Symbol contends that, under Lemelson's theory, every minor reference to a particular field in a specification could expand the standard for judging a patent's compliance with the statute, greatly complicating the administration of the patent laws. Symbol argues that the court's characterization of the person of ordinary skill in the art was not in error and should be affirmed.

Lemelson additionally argues that the district court abused its discretion in holding the asserted patents unenforceable for prosecution laches. Lemelson argues that the district court solely relied on the delay in the issuance of the asserted patents. It claims that it provided justification for the time that elapsed between the filing of each of its patents and their eventual issuance, citing such events as restriction requirements by PTO examiners and time pending review by the PTO. Furthermore, Lemelson argues that the court agreed that Symbol had not proven that Lemelson intentionally delayed issuance, a fact that should have been dispositive of Symbol's equitable defense.

Symbol responds that the court considered many factors in addition to the "sheer elapsed time" of Lemelson's prosecution, including the prosecution histories of the asserted claims, Lemelson's conduct before the PTO during decades of prosecution, the independent progress of other innovators in the field of machine vision and bar code technology, and the prejudice to the public resulting from Lemelson's delay. Those reasons, Symbol argues, were well supported by evidence and properly considered by the court. It also contends that the laches standard does not require "intentional" delay, but only that which is "unreasonable and unexplained."

Lemelson finally argues that the district court erred in its claim constructions and in excluding depositions of the deceased inventor and other evidence. It additionally challenges the court's holding of a lack of infringement.

[1] [2] [3] We agree with Symbol that the court did not abuse its discretion in holding that Lemelson's patents are unenforceable under the doctrine of prosecution laches. The doctrine of prosecution laches is an equitable defense, *Symbol II*, 277 F.3d at 1366 (quoting P.J. Federico, Commentary on the New Patent Act, 75 *J. Pat. & Trademark Off. Soc'y* 161, 215 (1993)), and we review the judgment of the district court on that issue for an abuse of discretion, *Bridgestone/Firestone Research v. Auto. Club*, 245 F.3d 1359, 1361 (Fed.Cir.2001). This court has earlier held in this case that prosecution laches may render a patent unenforceable when it has issued only after an unreasonable and unexplained delay in prosecution. *Symbol II*, 277 F.3d at 1363, 1368. We did not set forth any firm guidelines for determining when such laches exists, but left this determination to

the district court on remand, as the defense exists as an equitable doctrine. In so doing, however, we discussed precedent such as *Woodbridge v. United States*, 263 U.S. 50, 44 S.Ct. 45, 68 L.Ed. 159 (1923) , and *Webster Electric Co. v. Splitdorf Electrical Co.*, 264 U.S. 463, 44 S.Ct. 342, 68 L.Ed. 792 (1924), wherein the Supreme Court applied the doctrine of prosecution laches to render patents unenforceable. Although those cases involved a nine-and-a-half-year delay and an eight-year delay, respectively, the Court later held that the presumptive two-year time limit referred to in *Webster* was dictum because it was not directly applicable to the issue of laches on which the case was decided. Thus, there are no strict time limitations for determining whether continued refiling of patent applications is a legitimate utilization of statutory provisions or an abuse of those provisions. The matter is to be decided as a matter of equity, subject to the discretion of a district court before which the issue is raised.

[4] There are legitimate grounds for refiling a patent application which should not normally be grounds for a holding of laches, and the doctrine should be used sparingly lest statutory provisions be unjustifiably vitiated. The doctrine should be applied only in egregious cases of misuse of the statutory patent system.

[5] Filing a divisional application in response to a requirement for restriction is one such legitimate reason for refiling a patent application. Given one's entitlement to claim an invention in various ways, and the PTO's practice of limiting its examination of an application to only one of what it considers to be several inventions, it cannot, without more, be an abuse of the system to file divisional applications on various aspects that the PTO has considered to be separate and distinct from each other. *See* 35 U .S.C. § 121 (2000) ; 37 C.F.R. § 1.142 (2005); *see also* Manual of Patent Examining Procedure § § 803, 818 (8th ed., rev. 2 2004). That is so even when one defers the filing of a divisional application until just before the issuance of the parent application. Such action is expressly allowed by statute. 35 U.S.C. § 121. Moreover, one might legitimately refile an application containing rejected claims in order to present evidence of unexpected advantages of an invention when that evidence may not have existed at the time of an original rejection. Commonly, and justifiably, one might refile an application to add subject matter in order to attempt to support broader claims as the development of an invention progresses, although entitlement to an earlier filing date for any claimed subject matter may of course be necessary to avoid a statutory bar created by intervening events outlined in 35 U.S.C. § § 102 and 103. One may also refile an application even in the absence of any of these reasons, provided that such refiling is not unduly successive or repetitive.

[6] However, refiling an application solely containing previously-allowed claims for the business purpose of delaying their issuance can be considered an abuse of the patent system. *See Bogese*, 303 F.3d at 1368-69 (discussing *Ex parte Hull*, 191 USPQ 157 (Bd. Pat.App. & Interfs.1975)). In particular, multiple examples of repetitive refilings that demonstrate a pattern of unjustifiably delayed prosecution may be held to constitute laches. Taken singly, the delay in the prosecution on any one particular application will surely not appear to merit relief by the courts in equity. On the other hand, an examination of the totality of the circumstances, including the prosecution history of all of a series of related patents and overall delay in issuing claims, may trigger laches.

[7] The district court here heard considerable evidence that that was what occurred in this case. The court found that an 18- to 39-year time period had elapsed between the filing and issuance of the patents in suit. *Symbol III*, 301 F.Supp.2d at 1355. That period of time is not what is contemplated by the patent statute when it provides for continuation and continuation-in-part applications. Patent applications should normally be permitted to issue when they have been allowed and the statutory requirements complied with. The court also found that Lemelson had engaged in "culpable neglect" during the prosecution of these applications and it recognized the adverse effect on businesses that were unable to determine what was patented from what was not patented. *Id.* at 1356. It noted that the Lemelson patents occupied the "top thirteen positions" for the longest prosecutions from 1914 to 2001. *Id.* The court also cited the existence of "intervening private and public rights." *Id.* at 1357. It concluded that "[i]f the defense of prosecution laches does not apply under the totality of circumstances here, the Court can envision very few circumstances under which it would." *Id.* at 1356. Under those circumstances, we can hardly conclude that the court abused its discretion in holding the involved patents unenforceable on this ground. The court thoroughly examined the facts and the equities, and it exercised its discretion reasonably. We

therefore affirm the district court's holding of unenforceability.

In view of the fact that we are affirming the district court's judgment of unenforceability for reasons of prosecution laches, we need not review Lemelson's claims that the district court erred in its conclusions concerning entitlement to earlier priority dates, enablement, claim construction, infringement, or other issues that have been raised in this appeal, some of which otherwise might have required remand. Those issues are therefore moot.

CONCLUSION

Because the court did not abuse its discretion in holding that Lemelson's asserted patents are unenforceable under the doctrine of prosecution laches, we affirm the judgment of the district court.

AFFIRMED

FN* The patents at issue in this case are U.S. Patents 4,338,626; 4,511,918; 4,969,038; 4,979,029; 4,984,073; 5,023,714; 5,067,012; 5,119,190; 5,119,205; 5,128,753; 5,144,421; 5,249,045; 5,283,641; and 5,351,078.

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Briefs and Other Related Documents (Back to top)

- 2004 WL 3335263 (Appellate Brief) Reply Brief for Appellant (Dec. 23, 2004)
- 2004 WL 3335264 (Appellate Brief) Brief of Amicus Curiae Intel Corporation in Support of Appellees Symbol Technologies Inc., et al. (Dec. 14, 2004)
- 2004 WL 3335265 (Appellate Brief) National Retail Federation's Amicus Curice Brief in Support of Plaintiffs-Appellees (Dec. 14, 2004)
- 2004 WL 3335267 (Appellate Brief) Brief of Amicus Curiae Takeda Pharmaceutical Supporting Plaintiffs-Appellees (Nov. 29, 2004)
- 2004 WL 3335266 (Appellate Brief) Brief for Amici Curiae Cypress Semiconductor Corp., LSI Logic Corp., Micrel, Inc., and Linear Technology Corp. in Support of Plaintiffs-Appellees (Nov. 20, 2004)
- 2004 WL 3335262 (Appellate Brief) Brief of Plaintiffs-Appellees (Nov. 16, 2004)
- 2004 WL 3335261 (Appellate Brief) Brief for Appellant (Sep. 07, 2004)
- 04-1451 (Docket) (Jul. 06, 2004)

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